

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 February 2004 (05.02.2004)

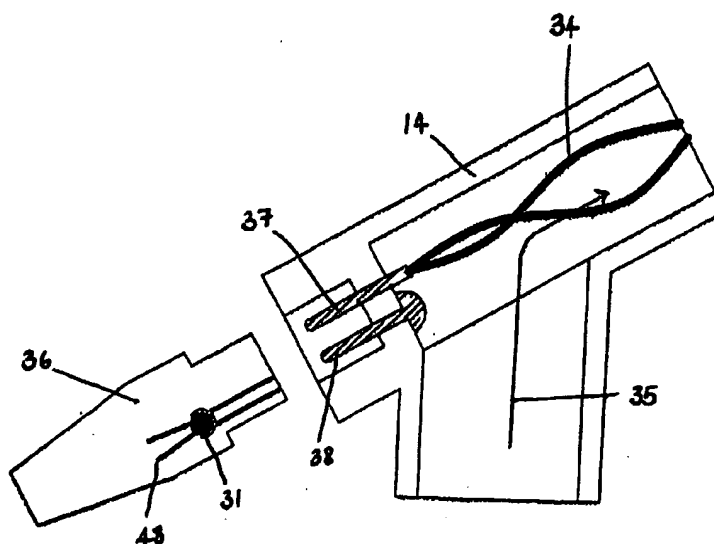
PCT

(10) International Publication Number
WO 2004/011072 A1

- (51) International Patent Classification?: A61M 16/00, G01K 1/10, 1/12, 1/16
- (21) International Application Number: PCT/NZ2003/000164
- (22) International Filing Date: 25 July 2003 (25.07.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 520513 31 July 2002 (31.07.2002) NZ
- (71) Applicant (for all designated States except US): FISHER & PAYKEL HEALTHCARE LIMITED [NZ/NZ]; 15 Maurice Paykel Place, East Tamaki, 1706 Auckland (NZ).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SMITH, Malcolm, David [NZ/NZ]; 29 Fernleigh Avenue, Royal Oak, 1003 Auckland (NZ). MCPHEE, Stephen, William [NZ/NZ]; 2/55 Coldham Crescent, St John, 1005 Auckland (NZ).
- (74) Agents: ADAMS, Matthew, D et al.; A J Park, 6th Floor Huddart Parker Building, PO Box 949, 6015 Wellington (NZ).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
— with amended claims

[Continued on next page]

(54) Title: ISOLATED TEMPERATURE SENSOR FOR HUMIDIFICATION SYSTEM



(57) Abstract: This invention relates to gases distribution systems and in particular, to temperature sensors. The sensor of the present invention is configured to determine the temperature of a flow of respiratory gases and comprises a sensor housing (36) configured for positioning proximate to a flow of gases and a temperature transducer (31) housed within the sensor housing (36). The sensor housing (36) provides a substantial pathogen barrier between the flow of gases and the temperature transducer (31), but permits the temperature transducer to provide a substantial indication of the temperature of the flow of gases. In particular, the temperature of the gases is remotely sensed via a conductive path (38) through the wall of the breathing circuit (14). This conductive path (38), integral to the breathing circuit (14), could then be disposed of or reused after suitable sterilisation.

WO 2004/011072 A1

WO 2004/011072 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.